

HB1 Bender Manual



ASSEMBLY AND OPERATING INSTRUCTIONS

1-877-VAN-SANT

WWW.TRICK-TOOLS.COM

HB1 Unpacking & Parts List

Van Sant Enterprises, Inc. o 80 Truman Rd o Pella, IA 50219 o www.trick-tools.com

Upon receiving packages verify that there are no signs of damage and that all parts are present. If a package has been damaged and parts are either missing or damaged, immediately contact our sales office at 1-877-VAN-SANT.

PACKAGE 1 CONTENTS:

1 Instruction Manual
1 HB1 Hand Bender

A.

- (1) VS001-004 Handle
- (1) VS001-006 Front Block
- (1) VS001-007 Rear Block
- (1) VS001-008 Slide Block
- (1) VS001-009 Center Pin
- (4) 1/4"x20-3/4" Socket Head Bolts
- (1) Shoulder Bolt
- (1) Acme Rod Assembly (Rod, Knob, & Bushings)
- (1) Socket Head Bolt
- (1) Flat Washer

The above items are pre-assembled

B.

- (1) VS001-001 Bender Base Plate
- (1) VS001-002 Stop Block (4-sided)
- (1) 7/16" Socket Head Counter Sunk Bolt
- (1) 3/8" Socket Head Bolt
- (1) 3/8" Flat Washer
- (1) 3/8" Nut

The above 6 items are pre-assembled

- (2) 3/8" Socket Head Counter Sunk Bolt

C.

Optional Items:

Mounting Block (standard when purchased without a pedestal)
Die Set(s)

PACKAGE 2 CONTENTS:

- (1) Pedestal
- (1) Pedestal Die Rack
- (2) Die Rack Mounting Screws

Assembly

1) If using the bender without a pedestal, tighten the base plate of the bender to the supplied mounting block using the 3/8" counter-sunk socket head bolts. With the mounting block secured, the bender may be mounted to anything rigid enough not to twist or move during the bending operation, or clamped in a standard bench vise. If you purchased the optional pedestal, you will not have a mounting block, but rather position the bender base plate onto the stand and fasten with the same 3/8" counter-sunk socket head bolts.

2) As seen in Figure 1, remove the large 7/16" counter-sunk bolt from the center threaded hole in the base plate. Attach the die in which you want to be the "Former Die", or the die in which will eventually match your bent part. Place the recessed hole "UP," and tighten to the base plate. NOTE: Tighten firmly to insure that the tubing does not slip by rotating the former die during the bending process.



Figure 1



Figure 2

3) With the main plate of the HB1 bender now mounted firmly and Former Die installed, pick up the handle assembly and remove the shoulder bolt from the bottom. Figure 2

4) Attach the appropriate matching die to the bottom of the handle with the bolt slipping into the recessed side of the die set as seen to the right in Figure 3. This becomes your "Following Die."



Figure 3



Figure 4

5) Lube the center pin and recessed area of former die as shown in Figure 4. Anti-seize or a paste lube is the best. Check lube periodically, and re-lube at die changes.

6) Drop the handle into the former die on the bender by placing the center pin, located on the end of the handle, into the top of the former die. You are now ready to adjust your following die and stopper, and place the tubing into the machine.

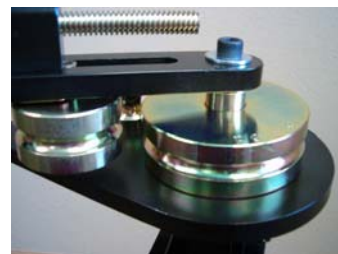


Figure 5

Optional Pedestal Assembly



Figure 6

- 1) If an optional pedestal was purchased, the die rack can be attached to the frame of the Pedestal using the 2 included lag bolts as seen in Figure 6.
- 2) Further, the pedestal can be bolted to the floor using traditional concrete screws or Lag screw/concrete anchor combinations.

Operation

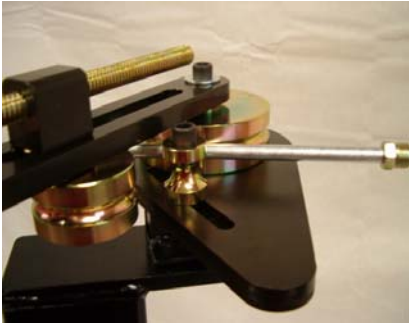


Figure 7

- 1) Back off the knob on the handle far enough to allow the tubing to slide into the bender between the former die and following die. Position the stopper close to the former die. There are 4 sides to the stopper block, pick the appropriate size to most closely match your tubing diameter. The closer the stopper block is placed to the former, the tighter bend-to-bend distances you can achieve and less chance for material slippage.

- 2) Spin the knob on handle to position following die close to the former die. NOTE: For best bend quality, especially on thin wall applications, move the following die as close to the former as possible. Figure 8



Figure 8



Figure 9

- 3) Rotate bend arm away from the stopper to produce your bend as seen in Figure 9.

Note: Be flexible with the bender setup. Different materials, wall thicknesses, Center-Line-Radii, etc. may affect bend quality. To obtain the best quality bend possible, experiment with the distance from the Former Die to the Follower Die by backing off/moving forward the knob on the handle. Keep stopper close to former die to eliminate slippage of material. For more bending advice or help, call 1-877-VAN-SANT.